

# MINNESOTA

## Science and Engineering Profile

|                                     | Minnesota | U.S.        | Rank |  | Minnesota | U.S.      | Rank |
|-------------------------------------|-----------|-------------|------|--|-----------|-----------|------|
| Doctoral scientists, 1993           | 7,705     | 430,332     | 18   | Total R&D performance, 1993 (millions)   | \$2,922   | \$161,427 | 14   |
| Doctoral engineers, 1993            | 1,163     | 81,293      | 21   | Industry R&D, 1993 (millions)            | \$2,458   | \$117,622 | 11   |
| S&E doctorates awarded, 1995        | 475       | 26,482      | 18   | Academic R&D, 1994 (millions)            | \$318     | \$20,573  | 22   |
| of which, in life sciences          | 30%       | 24%         |      | of which, in life sciences               | 69%       | 55%       |      |
| in engineering                      | 24%       | 23%         |      | in engineering                           | 10%       | 16%       |      |
| in psychology                       | 16%       | 13%         |      | in math & computer sciences              | 7%        | 4%        |      |
| S&E postdoctorates, 1994            |           |             |      | Higher education current-fund            |           |           |      |
| in doctorate-granting institutions  | 705       | 36,143      | 15   | expenditures, 1993 (millions)            | \$3,099   | \$163,994 | 18   |
| S&E graduate students, 1994         |           |             |      | Number of SBIR awards, 1990-94           | 269       | 18,023    | 18   |
| in doctorate-granting institutions  | 5,969     | 438,694     | 26   | Patents issued to state residents, 1995  | 1,657     | 55,717    | 11   |
| Population, 1995 (000s)             | 4,610     | 262,755     | 20   | Gross state product, 1992 (billions)     | \$110.3   | \$5,994.1 | 18   |
| Civilian labor force, 1995 (000s)   | 2,589     | 132,281     | 20   | of which, agriculture                    | 3%        | 2%        |      |
| Personal income per capita, 1995    | \$23,118  | \$22,788    | 20   | manufacturing, mining, construction      | 25%       | 23%       |      |
| Federal spending                    |           |             |      | transportation, communication, utilities | 8%        | 9%        |      |
| Total expenditures, 1995 (millions) | \$18,825  | \$1,326,294 | 26   | wholesale and retail trade               | 17%       | 16%       |      |
| R&D obligations, 1994 (millions)    | \$474     | \$65,654    | 24   | finance, insurance, real estate          | 18%       | 18%       |      |
|                                     |           |             |      | services                                 | 18%       | 20%       |      |
|                                     |           |             |      | government                               | 11%       | 12%       |      |

Rankings and totals are based on data for the 50 States and D.C.

Data on S&E postdoctorates and S&E graduate students include health fields.

### Federal Obligations for Research and Development in Minnesota by Agency and Performer: Fiscal Year 1994

[Thousands of dollars]

|   | Total   | Federal intramural | All FFRDCs | Industrial firms | Universities & colleges | Other nonprofits | State & local government | State rank |
|---|---------|--------------------|------------|------------------|-------------------------|------------------|--------------------------|------------|
| <b>Total, all agencies</b>                  | 474,372 | 40,620             | 0          | 183,537          | 171,224                 | 73,128           | 5,863                    | 24         |
| <b>Department of Agriculture</b>            | 24,263  | 14,963             | 0          | 160              | 9,074                   | 0                | 66                       | 20         |
| <b>Department of Commerce</b>               | 2,727   | 0                  | 0          | 2,274            | 453                     | 0                | 0                        | 26         |
| <b>Department of Defense</b>                | 184,886 | 4,093              | 0          | 166,869          | 11,616                  | 2,308            | 0                        | 23         |
| <b>Department of Energy</b>                 | 6,867   | 0                  | 0          | 0                | 6,867                   | 0                | 0                        | 36         |
| <b>Dept. of Health &amp; Human Services</b> | 187,722 | 0                  | 0          | 3,862            | 109,315                 | 69,986           | 4,559                    | 16         |
| <b>Department of the Interior</b>           | 17,664  | 15,973             | 0          | 1,219            | 472                     | 0                | 0                        | 12         |
| <b>Department of Transportation</b>         | 5,284   | 0                  | 0          | 3,017            | 1,154                   | 0                | 1,113                    | 23         |
| <b>Environmental Protection Agency</b>      | 10,376  | 5,591              | 0          | 3,001            | 1,659                   | 0                | 125                      | 12         |
| <b>Nat'l Aeronautics &amp; Space Admin.</b> | 4,152   | 0                  | 0          | 2,009            | 2,079                   | 64               | 0                        | 36         |
| <b>National Science Foundation</b>          | 30,431  | 0                  | 0          | 1,126            | 28,535                  | 770              | 0                        | 21         |
| <b>State rank</b>                           | 24      | 36                 | na         | 21               | 22                      | 10               | 9                        |            |

Federal R&D obligations are as reported by funding agencies.

FFRDC = federally funded research and development center

SBIR = small business innovation research

na = not applicable

Prepared by the National Science Foundation/Division of Science Resources Studies. Data compiled from numerous sources.